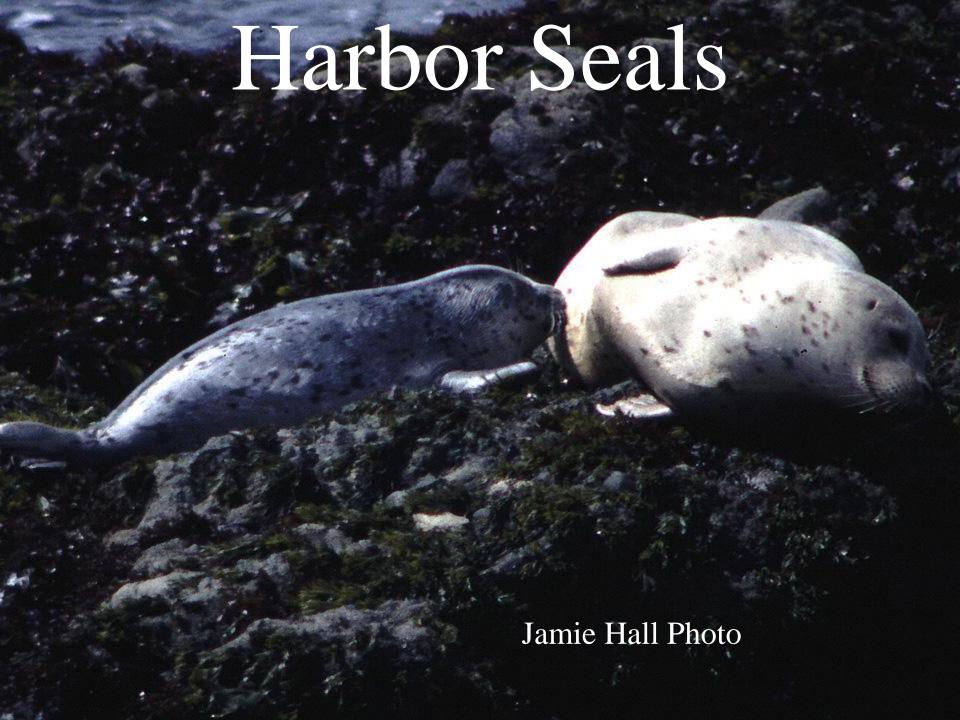
# Impacts of the Russian River Sandbar on Wildlife



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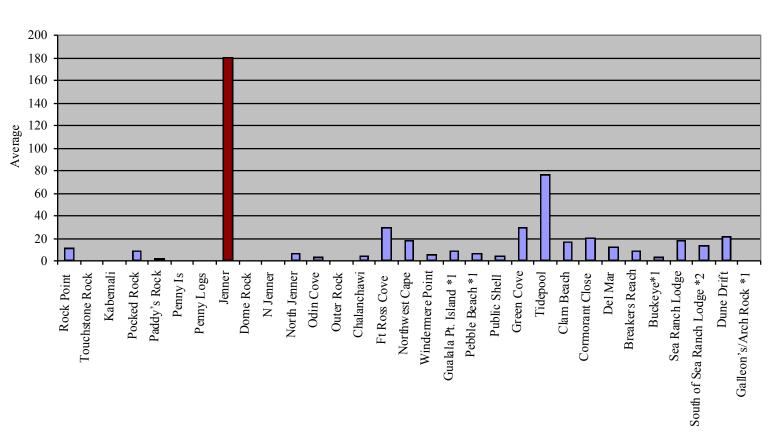


#### Jenner Is a Major North Coast Harbor Seal Haulout

- At molt, it is the largest between Drake's Estero and the mouth of the Eel River
- State seal census shows it has been important California haulout since the 1980s

#### Jenner Is Sonoma County's Major Haulout

#### **Regional Census Sites**



# Jenner is also one of the most intensively studied haulouts on the West Coast

- State summer census began in 1982
- Monthly counts begin in 1988
- Elinor Twohy's Daily Counts since Linda Hansen's study of harbor ecology, completed in 1993
- Regional Census since 1998
- So we know trends over years and seasons

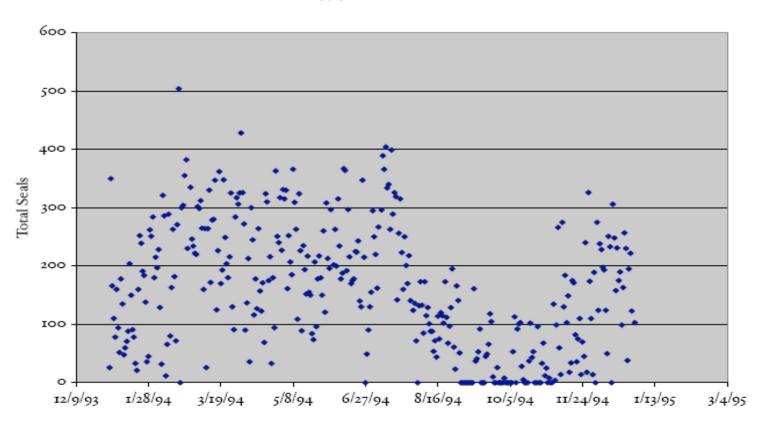
### Elinor Twohy's Daily Seal Census Reveals Two Types of Seasonal Patterns



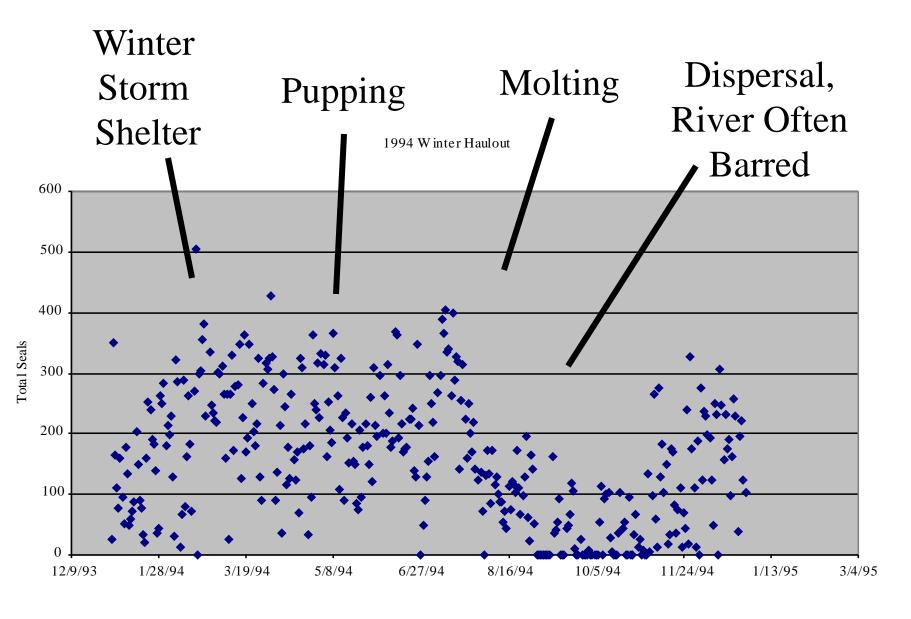
Joe Mortenson Photo

#### Haulout With Winter Maximum in 1994 Original Pattern Observed in 1990s

1994 Winter Haulout

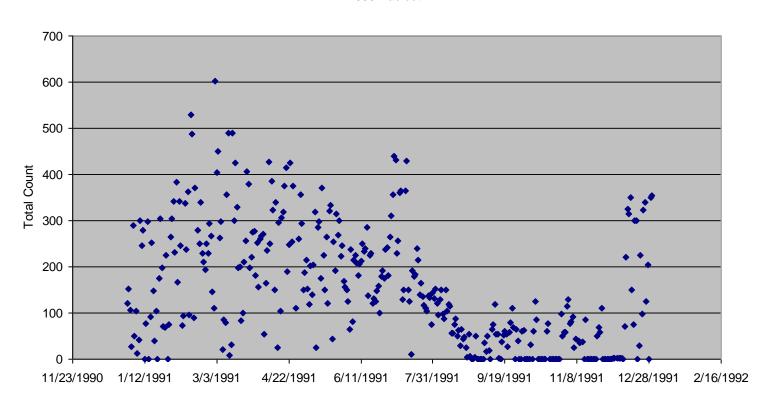


#### Original Seal Annual Cycle Components



### 1995 Haulout, Winter Maximum Showing Similar Pattern

1995 Haulout



#### Jenner Seals Came to Avoid or Flee R-1, A Maturing Elephant Seal Bull



Jamie Hall Photo

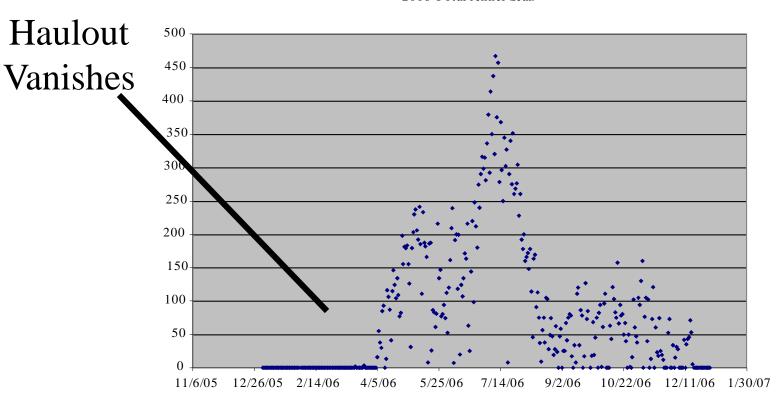
# Ultimately, R-1 Devastated Jenner Haulout

Lisa Hug Photo

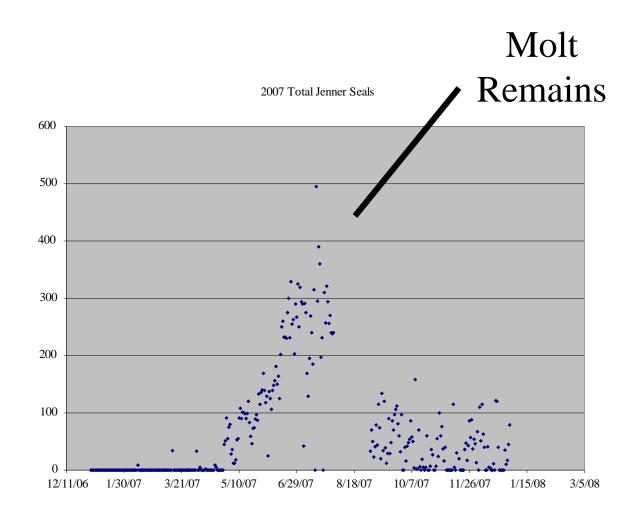


### 2006 Haulout, with R-1 Present Winter Haulout Disappears

2006 Total Jenner Seals

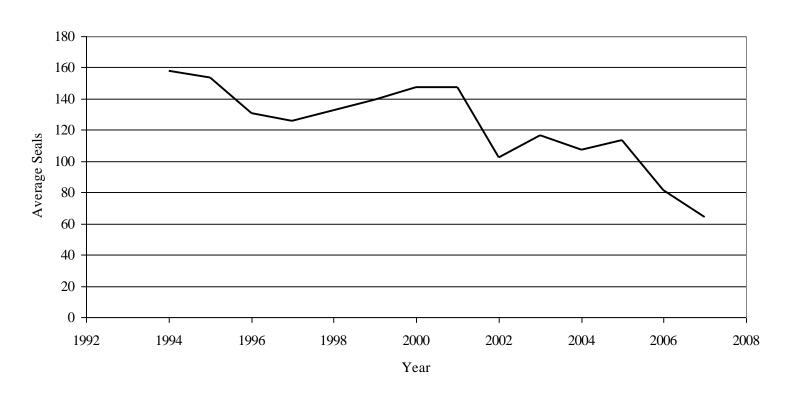


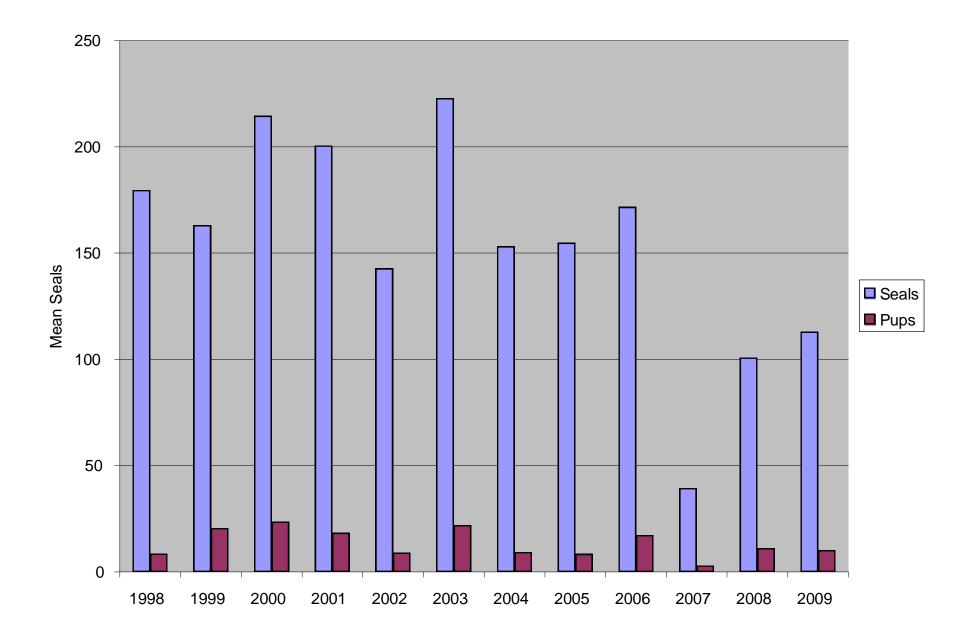
### In 2007 R-1 Lingered into Breeding Season Haulout Numbers Were Reduced Save for Molt

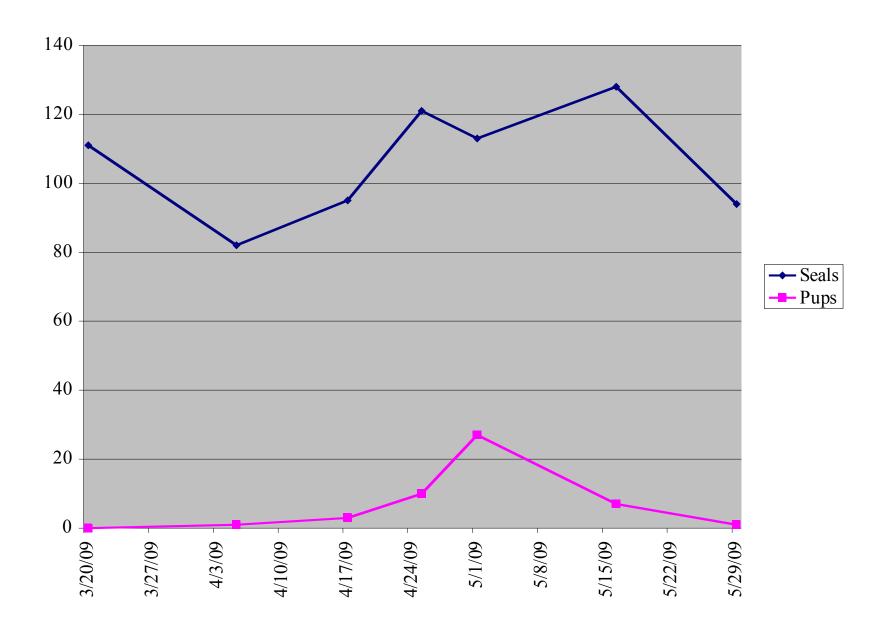


#### Decline in Jenner Haulout Yearly Average

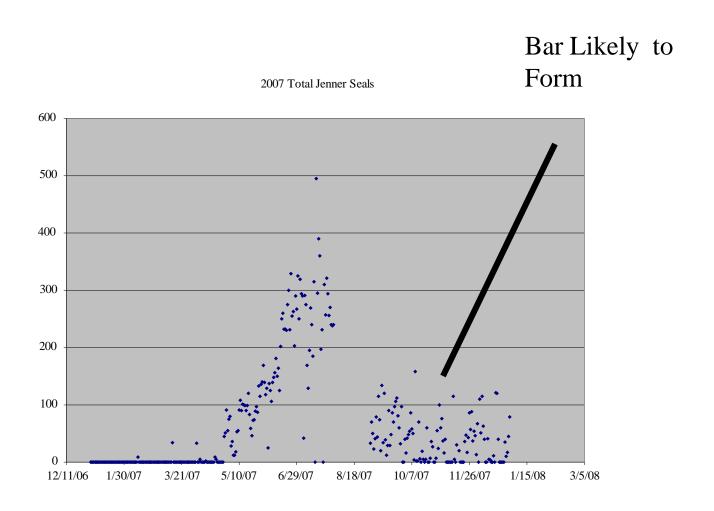
Jenner Seals





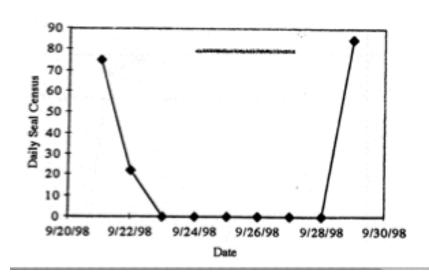


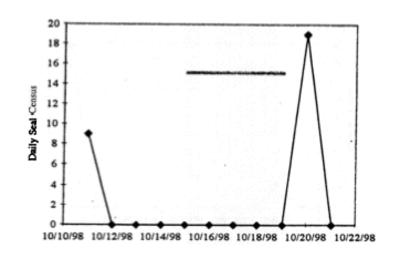
#### In Fall, Seal Counts Drop at the Time When the Sandbar Tends to Form



#### Sandbar Affects Harbor Seal Colony Strongly In Fall

- Sandbar indicated by bar in graphs
- Seals often abandon Jenner when bar forms
- Quick return after breach





### Possible Results of Sandbar Earlier in the Year

- We know a single source of disturbance like R-1 can wipe out a haulout
- Similar case of haulout elimination in part as a result of early morning walkers and other factors at Strawberry Point in Marin County
- Data shows that sandbar consistently reduces Harbor Seal haulout population
- Prolonged sandbar without breaching may reduce or eliminate this significant Harbor Seal haulout in molt

#### Jenner is Also for the Birds



#### Hundreds of Birds May Rest on the Bar

- Rest is vital not just for seals and people, but also for birds
- Many species of coastal birds congregate on the Russian River Spits
- Some come from our local colonies, others from distant rookeries
- Birds are put to flight by people walking across the bar and often abandon the area

#### Jenner Sea Mammals and Sea Birds Enjoy Legal Protections



#### Brown Pelicans at Jenner are a Bird of Special Concern under the Endangered Species Act and Heerman's Gulls are protected under the Migratory Bird Treaty

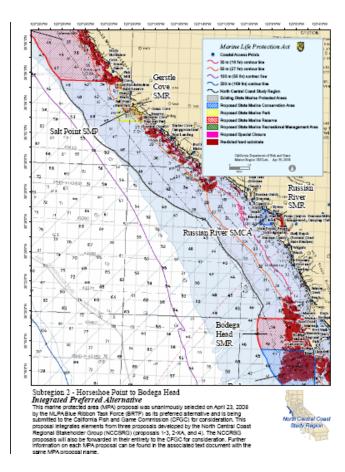




#### Marine Mammal Protection Act Covers Seals, Sea Lions and Whales



#### North Central Coast Marine Life Protection Plan is Being Finalized

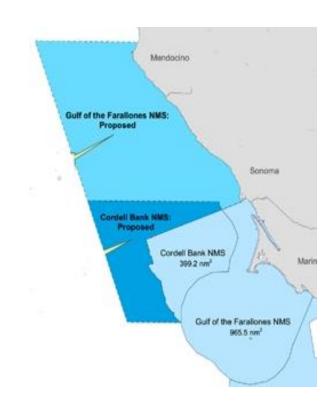


#### Marine Life Protection Act Provides General Protection

- Provisionally the Outer Mouth will be a State Marine Conservation Area
- And the Estuary will be a State Marine Reserve

#### Extension of the Gulf of the Farallones National Marine Sanctuary

- GFNMS likely to be
   extended northward shortly,
   bringing more protections to
   Jenner and the coast
- Thus Jenner may be protected by many laws and agencies, just like Bolinas Lagoon



# Many Other Species Will Affected by Closure

- The Estuary is a nursery for dungeness crabs
- How will they and other species be affected?



# In Summary, the River Mouth Is and Will Be Protected

- The Migratory Bird Treaty
- The Marine Mammal Protection Act
- Marine Life Protection Act
- Extension of the Gulf of the Farallones National Marine Sanctuary

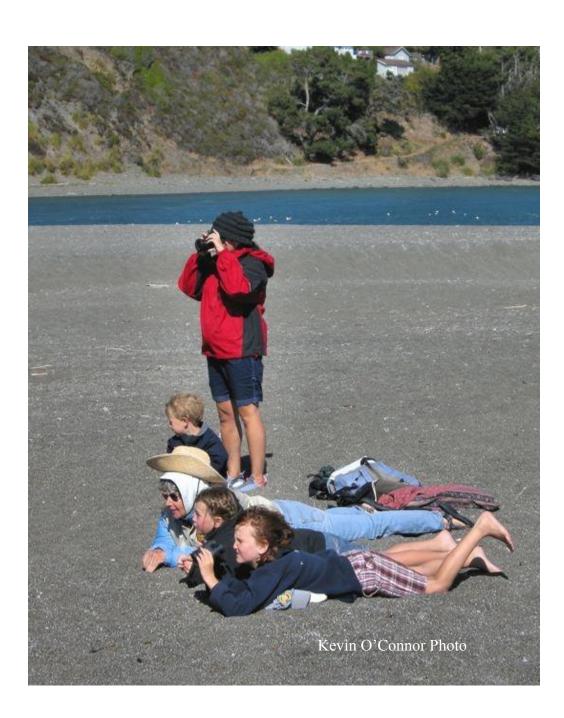
But how do these bear on the Biological Opinion?

# Why Not Integrated Management?

- Manage for all species, not just two
- Consider the breadth of consequences
- Take holistic approach
- There are many stakeholders at the mouth of the Russian River

Finally Remember
The Jenner Seals are
Ambassadors for the
Marine Environment

The seals link children, visitors, all of us, to the estuary and to the sea



### Jenner Seals Ambassadors to the Marine Environment

- Harbor Seals provide a connection for visitors to the otherwise inaccessible ocean environment
- Beach, estuary and Route 1 overlook provide public exceptional visual access to the river/ocean interface
- The overlook is a destination for thousands of travelers along the Sonoma County coast who stop just to see the Harbor Seals

State Park
Seal Watchers
Educate the Public while Protecting
the Seals.





Stewards of the Coast and Redwoods supports the State Park Volunteer in Parks Programs. Seal Watch was their first program and Seal Watchers have been protecting the Harbor Seal colony since 1985.

